

ALIEN 8-07

A. Intro A-1 Curse of obsolescence - now hitting U.S. + depreciation
 "Relative backwardness" - Gerschenkron
 "Creative destruction" - Schumpeter

A-2 Kinds of obsolescence.
 Cosmetic or factitious - auto style changes
 Style, e.g. in clothing
 Technical, e.g. in calculator & computers
 Energy obsolescence

I.r. obsolescence

Labor " " e.g. large old mansions
 Locational - Huge, but invisible to those who focus on
 Pollutional " Old refineries, power plants, vehicles

~~A-3 Obsolescence is one aspect of ~~tax~~ underuse of land~~

A-3 Deprec - e.g. NYC eruption; Riv. City roads

A-4 Much obsolescence is tax-induced

It is one aspect of ^{tax-induced} underuse of land.
 (The best way of perceiving & measuring excess burden)

A-5 Traditional way of seeing excess burden
 a little Harberger Triangle, from
 excise taxes. Trivializes it.



A-6 ^{New views} Even eliminating ~~the~~ Excess Burden
 a. Universal sales tax (or VAT, or GST)
 b. S of K is constant

J.B. Clark

Harberger, "New View"

B. S+D ~~A-b~~

B-1 Partiality of S+D analysis

Factors	G+S →	A	B	C	...	n
		Land	1	3		
		2	7	3		
		3	5	3		

S+D deal w. effects of price on allocn of flow of services of factors ~~among~~ ~~to~~ among G+S.

This is "price theory", which has become most of micro.

Has crowded out prodn. ecn., including dim. rets, variable props, "processes + products"

Has crowded out qn of whether factors are fully utilized; & are combined in the best proportions.

Crowded out distribn. theory

B-2. Can't infer much from partial analysis about aggr effects of factor theory.

Factors are "invariant"

B-3. Contrasting elasticities of supply

Land: Inelastic

K : Elastic

Labor: Pretty elastic, but save that for another day. (Migration; welfare; women + children; Keynes vs. assuming full empl; min. wage analyses; etc.)

B-4. "Shifting forward" loses meaning in aggr. analysis.

I assume here all demands are elastic
This is too simple but I figure that now.
(e.g. rents can rise)

(If rents rise, that shifts bldg tax to renters. There are people w/o land, hence mostly labor.)

B-5 All taxes shifted to land. ATCOR. Physiocrats.
Locke: Adam Smith;

C. Tax-induced underuse of land: a tax on labor (no K)
Tax biases mgr. vs. move highly taxed use

C-1. $NAT = N - tC$

where:

$$N = G - C$$

G = Gross Rev.

C = Labor Cost

t = tax rate on C

NAT = N After Tax

C-2. Non-neutrality: distorting the ranking

$$\frac{NAT}{N} = 1 - t \frac{C}{N}$$

Bias vs. uses with high $\frac{C}{N}$

$$\frac{C}{N} = \frac{C}{G-C}$$

As $C \rightarrow G$ (labor-intensive)

$$N \rightarrow 0$$

$$C/N \rightarrow \infty$$

C-3 Landowners avoid tax by choosing uses with low $\frac{C}{N}$

- parking lots; aprons
- hold for contingencies
- grains & grasses vs. trees & track
-

C-4 Thus, land mgs may shift tax back to labor, but main effect is waste

lower general level of wages, worldwide

"Tax-induced scorched-earth policy"
Artificial scarcity (coupled with failures of land mkt.)

D. A Tax on K - effect on upfront inv. in bldg & fixtures & furnishings

D-1. Cut off mgmt Δ s of ht, quality, appearance,

D-2. Tranche approach. Tranche = \$1m

<u>Tranche #</u>	Cost	MRR	Mgmt Rent	Total Rent	Ave Rent
1	10%	40%	30%	30%	30%
2	.	30%	20	50	25%
3	.	20%	10	60	20%
4	.	10%	0	60	15%

D-3 ~~Add~~ Subtract tax on bldg, cut off mgmt tranches

D-4 A ^{low} ~~small~~ tax on gross value of bldg is a high tax on net income

E. Effect of ~~the~~ taxes on renewal

E-1 Taxes on both labor & K, combined effects, But take K alone, keep simpler

E-2. Role of ~~the~~ ^{Land Rent (R)} - allocate land to best use

E-3. ~~the~~ $\frac{R}{K} = G - \frac{E}{K} - K(i + d)$ ($d = \frac{1}{n}$)

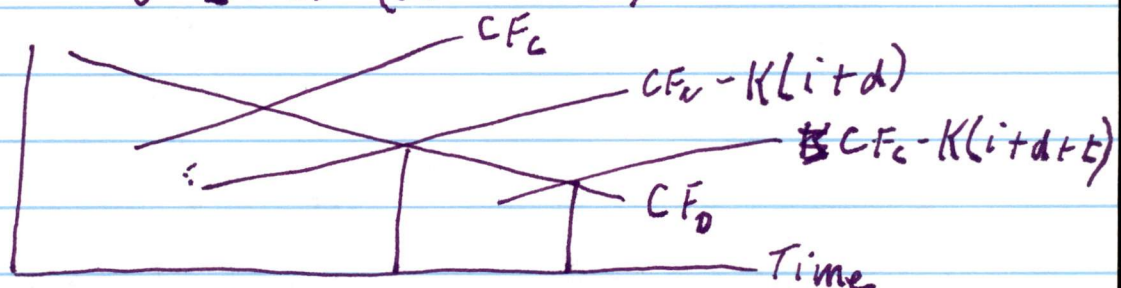
(d includes obsolescence)

$$i + d \approx \frac{i}{1 - (1+i)^{-n}} \equiv IPF \quad (n > 5)$$

E-4 Challenge vs. Dependency.

$$G - E = CF \quad (\text{See Note \#})$$

E-5



E-6 Fisc wants Challenge to win, pay taxes.

E-7 Measuring the excess burden in ~~years of deferral~~

a. i is the real i.r., much lower than nominal rate

b. t is not diluted by inflation

c. $d \approx \frac{1}{n}$, is high for restaurant remodeling & vehicles, low for tunnels, bridges, ~~pipe lines~~

Future CF will be irregular, so a) Forecast them, b) discount each one: c) Levelize by IPF. See p. 279

~~George Selgin~~

~~Georgian~~

~~George Mason~~

E-8. Excess burden in years
Unpredictable hrs of synergy

In some cases, 100 years

E-9. Reinforcing factors

- a. Credit crisis - hldg taxes hit early
- b. ~~The~~ Δ land taxes - move defenders

Use or sell. Cash flow effect

Empirical evidence - move for
pref. assmt. of fringe land.

c. Positive synergy upward spiral

d. Unite ownership & mgmt.

e. Δ domestic K funtn., by tax capn.

(The orig. track behind "Ricardian Equivalence")

f. Ec. in govt.

- Δ job opps

- obviate urban sprawl

Prospects for reform. 2nd ALEA Talk, 8-2-07

1. Decline of prop tax rates; rise of other taxes
2. Continuing pressure for more of the same. Tish
3. Rise of preferential assmt of "farmland"
4. Classification of prop.
Bias vs. "business", i.e. emplmt. & cash flow
5. Growth of tax-exempt instns - *charities*
6. Fed^{inc.} tax policy
 - a. Redepreciate based on resale price. Channing.
 - b. Overallocation of basis to Hds
 - c. Cap gains rate on "recapture"
 - d. Abolish of death
 - e. Deferral of tax on unrealized gains
Tax-free withdrawal of equity
 - f. No tax on imputed income
Gross deduction of int. & prop tax
7. Pressure to undress land, to max. depreciable basis.
8. State inc. taxes piggyback on Fed.
Provinces, too.
9. Anti-growth movement
10. Hi Fed & State taxes on labor income
Fiscal deficit generators

11. Fiscal Federalism

12. Auto congestion. Rise in social MC of driving (MSC) ~~(SMC)~~
From decreasing AC to Δ g AC (ASC)

Positive prospects

1. Need to replace infrastructure
2. Need to tax road space, curb parking
3. Energy crisis, need to economize on gas, heat.
"Compact cities"
4. Fiscal crisis in Wash., end of fiscal fed
5. Rising awareness of cost of X-subsidies: e.g. fire control
6. Need to revise rents on public domain
 - spectrum
 - fisheries
 - oil & gas

1. "Creating Wealth"

Prof. Clark of St. Johns - profits can create wealth.

Distribution ~~is~~ is not production.

Fallacy of Composition

2. Supply is a flow of goods & services (G+S) in a pt. of time.

(At an instant of time there is no flow.)

The services of factors perish w. time, used or not.

(An exception is the standby value of excess capacity)

3. The G+S are currently produced

4. Land yields many services effortlessly, i.e. amenity value, appearance, & location value
(E.g. site abutting airport terminal - Hilton in Boston, Marriott in Philly)

Supply & Demand

	A	B	C		∞
Land					
Labn					
K					

- a. Factors are immanent - but only land is 100% so.
- b. Labor includes direction (entrepreneurship)
~~Directors~~ ^{Managers} (owners) are responsible for not using assets to pay virtual debt service on virtual mortgage (o.e.) of $L + K$. This inc. under K advanced to labor (to carry inventories).
 Thus Laborer is also an ^{mgr.} ~~entrep.~~ over his own work. Thus every factor is directed by a ^{mgr.} ~~entrep.~~, so this universal ^{mgr.} ~~entrep.~~ may be assumed for all factors.
- c. Supply of land is constant, but demand includes demand of owners who do not sell or rent.
 Turnover on the mkt is small part of the whole.
- d. Factoral distrib. is Distributive, + ~~General~~ the allocative effects of taxes + relative prices are General. Effects of excise taxes are partial.
- e. Factors can shift from A to B etc., so partial S & D are quite elastic, + vary w. specifics.
 Taxes on factors are universal
- f. S of K is highly elastic.
 Reject fallacies of Clark, Harberger
- g. S of land is perfectly inelastic
- h. S of labor is ... ?

- i. Tax on K is shifted to land
- j. Land mgs avoid tax by regulating land use - use less K.
1. Static div. rev. Cut out mgtl increments
 2. Delay renewal
 3. Neglect mntce, re-modeling
 4. Buy land in advance of need, + for uncertain future needs - standby value, to seize opps.
 5. Return land after need has passed
- k. Tax on K lowers o.c. of holding land by lowering MRORAT

l. ~~Excise~~ Excise tax is shifted partly to buyers. Factor tax not, has all on buyers

m. Tax on K lowers rents

$$\text{Rent} = -K(i + d + t_1) + \cancel{\text{cost}} G - E$$

$$\text{Value Price} = \text{Rent} / (i + t_2 - g)$$

However, if i rises to offset t_1 , no change.
But i rises to offset t_1 (tax on bldg), not t_2 (tax on land.)

Taxes & Renewal: Releasing the Brake

P-1

Fig. 1: Traditional trivializing of Excess Burden

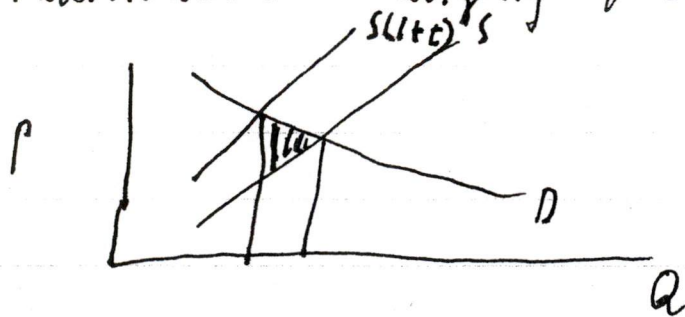


Fig. 2

$G + S \rightarrow$

	A	B	C		N
Inputs { Land	8	1	3		X
Universal { Labor	2	7	3		Y
K	3	5	3		Z

Fig. 3

A Disturbance in The Force (the market)
Simplest model: a tax on labor cost (C)

$$NAT = N - tC \quad (1)$$

where:

$$N = G - C$$

G = Gross Revenue

C = Cost of Labor

t = Tax rate on C

NAT = Net after tax

$$\frac{NAT}{N} = 1 - t \frac{C}{N} \quad (2)$$

$$\frac{c}{N} = \frac{c}{G - c} \quad (3)$$

$$\text{As } c \rightarrow G, \quad N \rightarrow 0, \quad \frac{c}{N} \rightarrow \infty$$

Fig. 4 a neutral tax does not disturb The Force

$$NAT = (G - c)(1 - t) = N(1 - t)$$

$$\frac{NAT}{N} = 1 - t$$

Note: This is not the present "income tax".

Fig. 5 A tax on K

$$R(\text{Rent}) = G - E - K_0(i + d) \quad (4)$$

where:

R = Site Rent

G = Gross Revenue

E = Expenses, current

K_0 = Capital up front, e.g. a building

i = interest rate

d = depreciation rate, straight line [#]

$d = \frac{1}{n}$

n = life of K

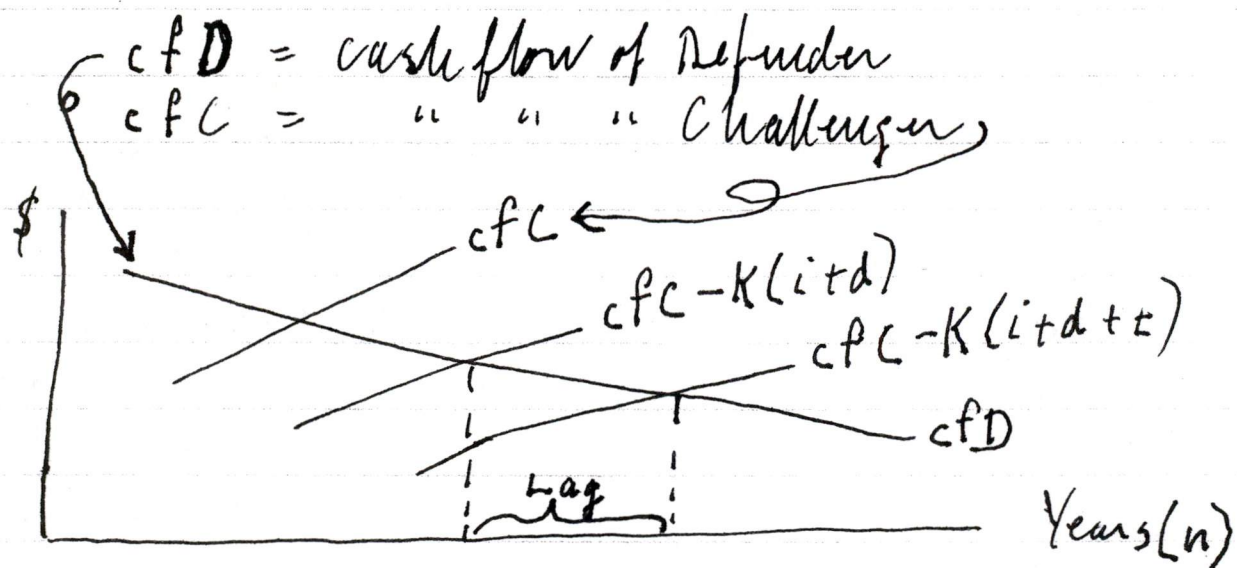
$G - E$ = cash flow (cf)

[#] "d" includes obsolescence, in this simple model

$$i + d \approx \frac{i}{1 - (1+i)^{-n}} \equiv IPF \quad (5)$$

IPF = Installment Plan Factor

Fig. 6 Challenger vs. Defender



where "t" = tax rate on K

Mike Rizzo. Send:

1. Interstate cfsms

- Ag article

- Noyes "

- Lowy Inst. except

- Raw data

Q. - Crty cfsms, Inc vs. R.E

2. Bib. to Eric Gunderson



26012 Atlantic Ocean Drive • Lake Forest, CA 92630

949-465-0770 • fax 949-465-0799 • thelabsite.com

MichaelR@aier.~~com~~org

Send W-9 etc.

Fax 413 528-0103



the
creative
lab